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| 10/008,872 | 11/08/2001 | John Lin | BP 1907 | 5330 |
| 51472 | 7590 | 06/15/2006 | EXAMINER | |
| GARLICK HARRISON & MARKISON P.O. BOX 160727 AUSTIN, TX 78716-0727 | | | DOAN, DUC T | |
| | | | ART UNIT | PAPER NUMBER |
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DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/008,872

Applicant(s)

LIN ET AL.

Examiner

Duc T. Doan

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-9, 12, 13, 15, 17, 18 and 20-22 is/are rejected.
- 7) ☒ Claim(s) 4, 10-11, 14, 16, 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claims 1-22 have been presented for examination in this application. In response to the last Office Action, none of the claims were amended. None of the claims were added. As a result, claims 1-22 are now pending in this application.

Claims 1-3,5-9,12-13,15,17-18,20-22 are rejected.

Claims 4,10-11,14,16,19 are objected to.

Applicant's arguments filed 12/27/2005 have been fully considered. As the result, Examiner withdraws previous rejections and applying new rejections with a new reference found.

Claim Rejection 35 USC 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 7 is rejected under 35 U.S.C. 101.

Although the claim reads "A method for storing and transmitting data..". The body of the claim does not have any step to set forth the transmitting data requirement, thus it renders the claim being improper under U.S .C 101

U.S.C. 112, second paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 7 is rejected under 35 U.S.C. 112 as indefinite, because the claim merely recites a use without any active, positive steps delimiting how this use is actually practiced. In this instant, the claim recites a method for transmitting data,. However, the body of the claim does not have any step to set forth the transmitting data requirement, thus it renders the claim being indefinite.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3,5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Auckland et al (US Pub 2002/0183013) and in view of Fesas, Jr (US 2002/0009075).

As for claim 1, Auckland describes a wireless transceiver device, comprising: modulation circuitry for modulating and demodulating signals that are transmitted over the airwaves (Fig 1:

#100); frequency conversion circuitry for up converting and down converting between radio frequency signals and baseband frequency signals (Fig 1: #100); digital-to-analog conversion circuitry for converting from analog to digital and from digital to analog (Fig 1: #100) (The RF/IF section 104 includes a receive module 110, a transmit module 112 and a frequency synthesizer 114. The receive module 110 generally includes a low noise amplifier (LNA), frequency downconversion, filtering, demodulation, analog to analog to digital conversion, etc., as indicated in FIG. 1. The transmit module 112 generally includes a frequency upconversion, filter, digital to analog conversion and modulation as indicated in FIG. 1; Auckland's paragraph 4, lines 1-8); a radio controller (Fig 1: #100) (The radio 100 includes a digital or baseband section 102, a radio frequency-to-intermediate frequency (RF/IF) section 104 and a radio frequency (RF) section 106; Auckland's paragraph 2, lines 1-2); and baseband processing circuitry including a first in first out memory structure for storing addresses for accessing data block. Auckland describes a digital signal processor (Fig: 6: #614) to further process the baseband signal into digital packets. Auckland does not describe the claim's detail of FIFO memory structures for storing addresses for accessing data blocks of these packets. However, Fesas describes a network interface device capable of sending and receiving packets over a network. The device includes FIFOs for storing addresses for accessing data blocks (Fesas's Fig 8: #850 transmit command FIFO, paragraph 39). It would have been obvious to one of ordinary skill in the art at the time of invention to include data structures as suggested by Fesas in Auckland's system, such that data segments for the packets can be retrieved from memory by the device quickly, thereby the packets are transmitted to the network with minimum assistance from the processor (Fesas's paragraphs 33-34).

As for claims 2-3, the claims recite a plurality of command blocks formed within a memory structure, which command blocks include addresses of data blocks stored within random access memory (claim 2; Fesas's Fig 8: #860, paragraph 39 transmit execution queue holds the command block, PDC that includes address points to data segments, Fig 3 paragraph 33); wherein the first in, first out memory structure includes pointers that define addresses of the command blocks (claim 3; Fesas's Fig 8: #850 transmit command FIFO includes pointers to address of the command block, paragraph 39);

As for claim 5, Auckland describes the wireless transceiver of claim 1 wherein the modulation circuitry includes Gaussian Phase Shift Keying modulation and demodulation circuitry (The radio may support any type of carrier modulation such as frequency modulation (FM), gaussian phase shift keying (GPSK), gaussian mean shift keying (GMSK), quadrature amplitude modulation (QAM) or other scheme now known or later developed; Auckland's paragraph 147, lines 2-4).

As for claim 6, the claim recites the wireless transceiver of claim 1 wherein the frequency conversion circuitry converts directly between radio frequency and baseband. Auckland describes an ACU capable of tuning to operate at different frequencies (Auckland's paragraph 76, lines 10-12); Frequency information comes from baseband processor (Fig 6, DSP #614) (The ACU 606 receives frequency, timing, and possibly other control signals at an input 628 from the synthesizer 612, or from the controller 614 as indicated by the dashed line in the drawing figure).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

A person shall be entitled to a patent unless -

(a) the invention was known or used by other's in this country or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 7-9,12-13,17-18,22 rejected under 35 U.S.C. 102 (a) as being anticipated by Fesas, JR (US 2002/0009075).

As for claims 7, the claim recites a method for storing and transmitting data comprising: storing a data block in random access memory (Fesas's Fig 8, paragraph 33 data segments); and storing a pointer that corresponds to the data block in a first in, first out memory structure (Fesas's Fig 8: #850 transmit command FIFO, store and address corresponding to data segments, paragraph 39).

As in claim 8-9, the claims recite wherein the pointer comprises an address of a command block (claim 8; Fesas's Fig 8: #850 transmit command FIFO includes pointers to address of the

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command block, paragraph 39); include the step of storing an address of the data block in the command block (claim 9; Fesas's paragraphs 33-34).

As in claims 12-13, the claims recite evaluating a command block address stored within a FIFO pointer (claim 12); examining the content of the command block specified by the pointer to determine a data block address (claim 13) (Fesas's paragraphs 33-34 teaches the command block structure that points to data segment structures. These structures must be evaluated and examining to determine the address of the data stored in the segments).

Claim 17 rejected based on the same rationale as in claim 7.

Claims 18,22 rejected based on the same rationale as in the rejection of claim 8.

Claims 15,20,21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fesas, Jr (US 2002/0009075) as applied to claims 7,17 respectively and in view of Auckland et al (US Pub 2002/0183013).

As in claim 15, the claim rejected based on the same rationale as in the rejection of claims 1 and 7. Data segments associated with the PDC will be retrieved and sent to the network (Fesas's paragraphs 32-33). Auckland describes data is further converted to radio frequency signal by radio modem (Auckland's Fig 6) and send over the airwave.

As in claim 20, the claim recites wherein the memory portions for storing the indicators are each one bit in length. The indicator bit is directly to indicate the status the entity it's associated with. Thus, obviously it requires one bit for each associated entity.

As in claim 21, the claim recites wherein the memory portions for storing the command blocks are each for bytes in length (Fesas's paragraph 10 describes the format for storing

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structures such as packet data command using the memory physical addressing format 32 bits.

Examiner notes that 32 bit addressing is a well-known format for addressing memory in a computer system).

Allowable Subject Matter

Claims 4,10-11,14,16,19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

When responding to the office action, Applicant is advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist examiner to locate the appropriate paragraphs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc T. Doan whose telephone number is 571-272-4171. The examiner can normally be reached on M-F 8:00 AM 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on 571-272-4210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DD



Mano Padmanabhan

6/12/06

Supervisory Patent Examiner

TC2188

**MANO PADMANABHAN
SUPERVISORY PATENT EXAMINER**